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COMPOSITION FOR ANTIREFLECTIVE COATING AND METHOD FOR FORMING SAME

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(21)Application number : 09-126278 (71)Applicant : NEC CORP

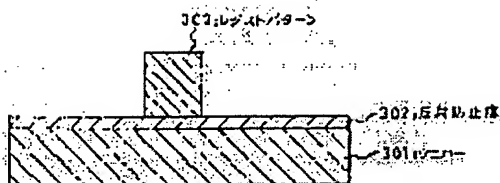
(22)Date of filing : 30.04.1997 (72)Inventor : ITANI TOSHIRO

(54) REFLECTION PREVENTING FILM MATERIAL

(57)Abstract:

PROBLEM TO BE SOLVED: To prevent contraction or trailing of a resist pattern on a reflection preventing film which is peculiar to a chemically amplifying resist, by adding one of or both of an acid compd. and a basic compd. to the antireflection film.

SOLUTION: An acid compd. or a basic compd., or both of these are added to a reflection preventing film material consisting of a crosslinking agent and a solvent, and the addition is controlled according to the acidity of a chemically amplifying resist to be used on the reflection preventing film, namely, according to the acidity of the acid produced from a photoacid producing agent. Thereby, the contraction and trailing of a resist pattern can be prevented. This is because the acidity is controlled to be almost same on the interface between the resist film 303 and the antireflection film 302 so that the deblocking reaction of the positive resist does not proceed on the interface between the resist film 303 and the reflection preventing film 302. Moreover, no excess changes in the compsn. is required to the resist material, the gradient of solubility characteristics which largely influence the resist resolution can be maintained large, and higher resolution can be obtd.



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